WHAT IS CLAIMED IS:

1. A method for manufacturing a semiconductor device comprising the steps of:

providing a laser apparatus having an oscillator, a homogenizer and an light attenuating means;

emitting a laser beam from the oscillator; and

irradiating the laser beam to a semiconductor film formed over a substrate to crystallize the semiconductor film,

wherein the light attenuating means is inserted between the oscillator and the homogenizer on an optical path when an energy of the laser beam applied to the semiconductor film is lower than an output energy range that allows the oscillator to operate most stably.

2. A method according to claim 1, wherein the oscillator is a pulse-oscillator.

3. A method according to claim 1, wherein the laser beam is an excimer laser beam.

4. A method according to claim 1, wherein the energy of the laser beam applied to the semiconductor film is 150-250 mJ/cm^2.

5. A method for manufacturing a semiconductor device comprising the

steps of:

providing a laser apparatus having an oscillator, a homogenizer and an light attenuating means;

emitting a first laser beam from the oscillator;

irradiating the first laser beam to a semiconductor film formed over a substrate to crystallize the semiconductor film;

emitting a second laser beam from the oscillator; and

irradiating the second laser beam to the crystallized semiconductor film,

wherein the light attenuating means is inserted between the oscillator and the homogenizer on an optical path when an energy of the first laser beam applied to the semiconductor film is lower than an output energy range that allows the oscillator to operate most stably.

6. A method according to claim 5, wherein the oscillator is a pulse-oscillator.

7. A method according to claim 5, wherein the first laser beam is an excimer laser beam.

8. A method according to claim 5, wherein the energy of the first laser beam applied to the semiconductor film is 150-250 mJ/cm^2.

9. A method for manufacturing a semiconductor device comprising the steps of:

providing a laser apparatus having an oscillator, a homogenizer and an light attenuating means;

emitting a first laser beam from the oscillator;

irradiating the first laser beam through the light attenuating means, which is inserted between the oscillator and the homogenizer on an optical path, to a semiconductor film formed over a substrate to crystallize the semiconductor film;

emitting a second laser beam from the oscillator; and

irradiating the second laser beam to the crystallized semiconductor film,

wherein a first energy of the first laser beam applied to the semiconductor film is lower than an output energy range that allows the oscillator to operate most stably,

wherein a second energy of the second laser beam applied to the crystallized semiconductor film is higher than the first energy of the first laser beam.

10. A method according to claim 9, wherein the oscillator is a pulse-oscillator.

11. A method according to claim 9, wherein the first laser beam is an excimer laser beam.

12. A method according to claim 9, wherein the first energy of the first laser beam is 150-250 mJ/cm^2.

13. A method for manufacturing a semiconductor device comprising the steps of:

providing a laser apparatus having an oscillator, a homogenizer and an light attenuating means;

emitting a laser beam from the oscillator; and

irradiating the laser beam to a semiconductor film formed over a substrate to crystallize the semiconductor film,

wherein the attenuating means is inserted between the oscillator and the homogenizer when an energy of the laser beam applied to the semiconductor film is lower than an output energy range that allows the oscillator to operate most stably,

wherein the laser beam has a cross section elongated in one direction on a surface of the semiconductor film.

14. A method according to claim 13, wherein the oscillator is a pulse-oscillator.

15. A method according to claim 13, wherein the laser beam is an excimer laser beam.

16. A method according to claim 13, wherein the energy of the laser beam is 150-250 mJ/cm^2.

17. A method for manufacturing a semiconductor device comprising the steps of:

providing a laser apparatus having an oscillator, a homogenizer and an light attenuating means;

emitting a first laser beam from the oscillator;

irradiating the first laser beam through the light attenuating means, which is inserted between the oscillator and the homogenizer on an optical path, to a semiconductor film formed over a substrate to crystallize the semiconductor film;

emitting a second laser beam from the oscillator; and

irradiating the second laser beam to the crystallized semiconductor film,

wherein an energy of the first laser beam applied to the semiconductor film is lower than an output energy range that allows the oscillator to operate most stably, and

wherein each of the first and second laser beams has a cross section elongated in one direction on a surface of the semiconductor film.

18. A method according to claim 17, wherein the oscillator is a pulse-oscillator.

19. A method according to claim 17, wherein the first laser beam is an excimer laser beam.

20. A method according to claim 17, wherein the first energy of the first

laser beam applied to the semiconductor film is 150-250 mJ/cm^2.

21. A method for manufacturing a semiconductor device comprising the steps of:

providing a laser apparatus having an oscillator, a homogenizer and an light attenuating means;

emitting a first laser beam from the oscillator;

irradiating the first laser beam through the light attenuating means, which is inserted between the oscillator and the homogenizer on an optical path, to a semiconductor film formed over a substrate to crystallize the semiconductor film;

emitting a second laser beam from the oscillator; and

irradiating the second laser beam to the crystallized semiconductor film,

wherein a first energy of the first laser beam applied to the semiconductor film is lower than an output energy range that allows the oscillator to operate most stably,

wherein a second energy of the second laser beam applied to the crystallized semiconductor film is higher than the first energy of the first laser beam,

wherein each of the first and second laser beams has a cross section elongated in one direction on a surface of the semiconductor film.

22. A method according to claim 21, wherein the oscillator is a pulse-oscillator.

23. A method according to claim 21, wherein the first laser beam is an excimer laser beam.

24. A method according to claim 21, wherein the first energy of the first laser beam is 150-250 mJ/cm^2.

25. A laser apparatus comprising:

an oscillator;

a reflection mirror;

an attenuating means; and

a homogenizer,

wherein the light attenuating means is provided between the reflection mirror and the homogenizer on an optical path.

26. A laser apparatus according to claim 25, wherein the oscillator is a pulse-oscillator.

27. A laser apparatus comprising:

an oscillator;

a reflection mirror;

an attenuating means; and

a homogenizer,

wherein the light attenuating means is provided between the oscillator

and the homogenizer on an optical path.

28. A laser apparatus according to claim 27, wherein the oscillator is a pulse-oscillator.